Upper Respiratory Tract disorders

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Upper Respiratory Tract Infection
URTI

Acute coryza

- Acute coryza is the most common URTI and is usually the result of rhinovirus infection. In addition to general malaise, acute coryza typically causes nasal discharge, sneezing and cough. Involvement of the pharynx results in a sore throat, that of the larynx a hoarse or lost voice

Acute coryza

- If complicated by a tracheitis or bronchitis, chest tightness and wheeze typical of asthma occur.
- Specific investigation is rarely warranted .
- Treatment

simple analgesics, antipyretics and decongestants is all that is required. Symptoms usually resolve quickly,

but if repeated URTIs ‘go to the chest’, a more formal diagnosis of asthma ought to be considered.

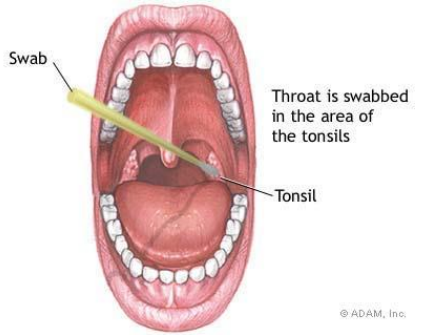
A variety of viruses causing URTI may also trigger exacerbations of asthma or COPD and aggravate other lung diseases.

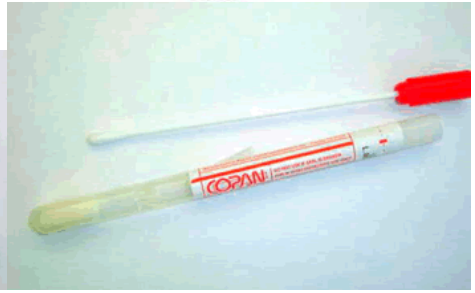
Pharyngitis

- Late fall, winter, early spring
- 5 to 15 years
- erythema, edema, and/or exudates
- Tender, enlarged >1 cm lymph nodes
- Fever 38.4and 39.4º C
- No signs and symptoms of viral infections

Pharyngitis

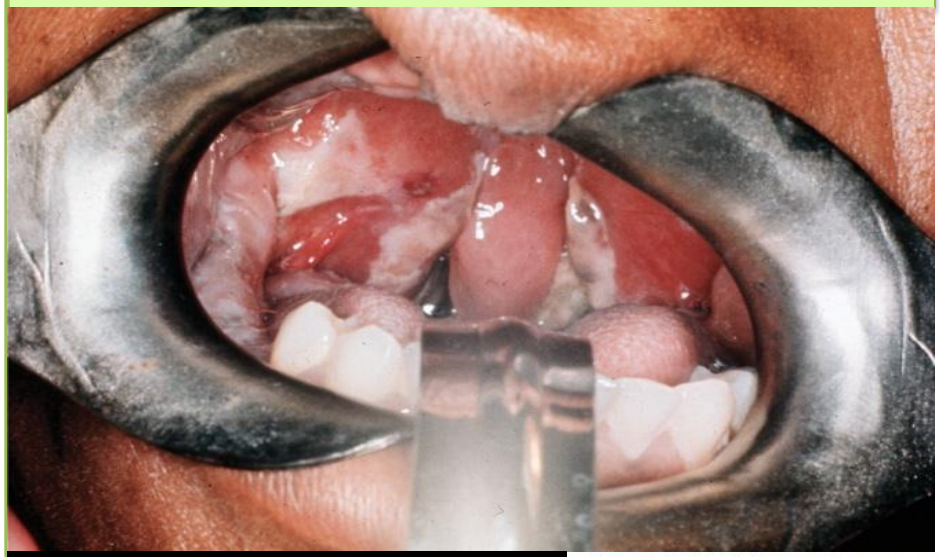
- Etiology
- Viral is the most common
  - Enterovirus, HSV, EBV, HIV, Respiratory viruses
- Bacterial Group A streptococcus
- Neisseria gonorrhoeae
- Anaerobic bacteria i.e Lemierre's syndrome
- Corynebacterium diphtheriae

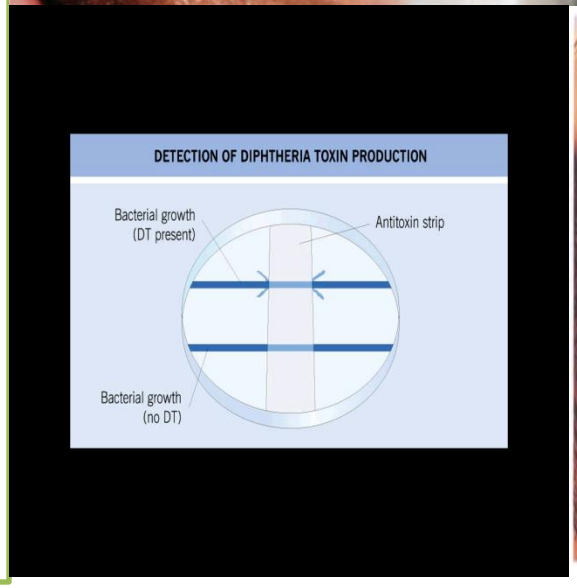


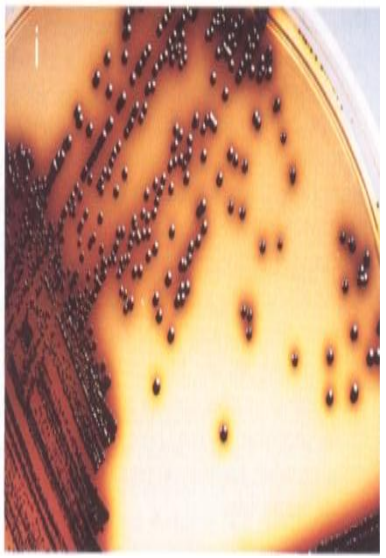


Corynebacterium diphtheriae

- One of the most common causes of death in unvaccinated children 1-5yrs.
- Toxin mediated disease
- Rapid progression tightly adhering gray membrane in the throat
- Tinsdale media
- Penicillin or erythromycin

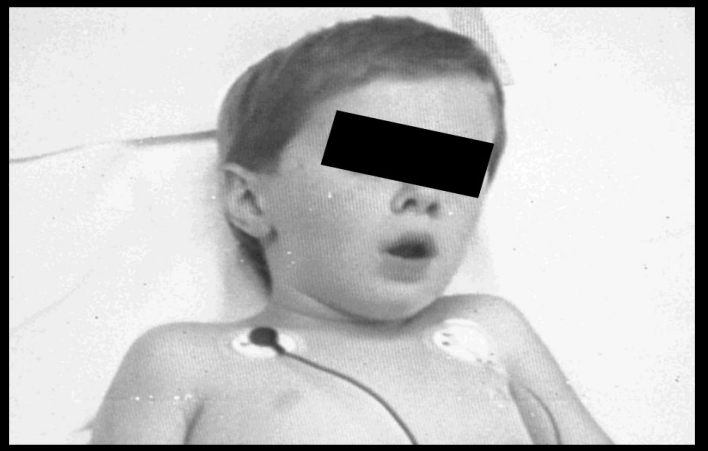






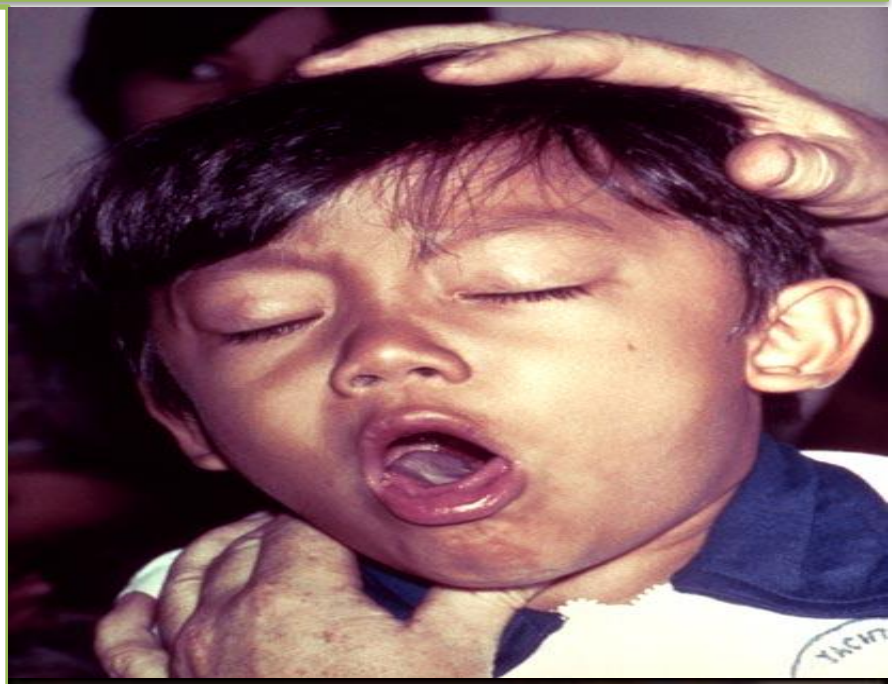
Epiglottitis

- Usually young unimmunized children presented with dysphasia, drooling, and distress
- *H.influenzae* Type b
- S.pneumonae
- S.aureus or Beta hemolytic streptoccus
- Viral or candida
- Ceftriaxone,steriods



Pertussis (whooping cough)

- *Bordetella pertussis (GNB)*
- Pertussis toxin (PT)*
- Filamentous hemagglutinin (FHA)
- Highly contagious.
- Incubation period 1 to 3 wks
- Catarrhal Stage 1-2 weeks
- Paroxysmal Stage 1-6 weeks
- Convalescent Stage 3-6 weeks



Pertussis (whooping cough)

- Adults usually experience a mild illness similar to acute coryza, but some individuals develop paroxysms of coughing
- which can persist for weeks to months, earning whooping cough the designation of ‘the cough of 100 days.

Pertussis (whooping cough)

- Leukocytosis with lymphocyte predominance
- nasopharyngeal (NP) swabs PCR
- culture Charcoal-horse blood T media
- Regan-Lowe, Bordet-Gengou
- Treatment
- If the illness is recognised early in the clinical course, macrolide antibiotics may ameliorate the course.

Bacterial sinusitis

- Acute sinusitis
- Children
- Mainly clinical diagnosis
- Aspiration in case T failure
- Dx X-rays CT/MRI
- Periorbital cellulitis R/O sinusitis by CT/MRI
- Post-septal involvement treat as meningitis

- Chronic sinusitis
- Less local symptoms
- Mimic allergic rhinitis
- Dx Image less useful than acute (changes persist after T and to R/O tumor
- Obtain odontogenic X-rays if maxillary sinus

rhinusinusitis

- **Acute sinusitis**
  - *S.pneumoniae*
  - *H.infuenza,M.catarrhalis*
  - *Viral*
- Treatment
- With topical corticosteroids, nasal decongestants and regular nasal douching are usually sufficient and, although bacterial infection is often present, antibiotics are only indicated

if symptoms persist for more than 5 days

- **Chronic sinusitis**
  - S.pneumoniae
  - H.infuenza
  - M.catarrhalis
  - Oral anaerobes

Treatment

- Same as acute sinusitis
- Duration
- May needs prolonged duration.

Clinical Presentations of Sinusitis

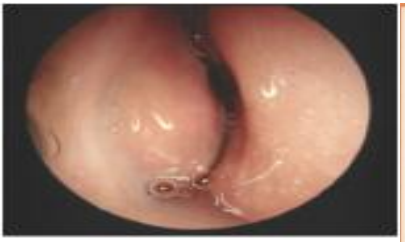
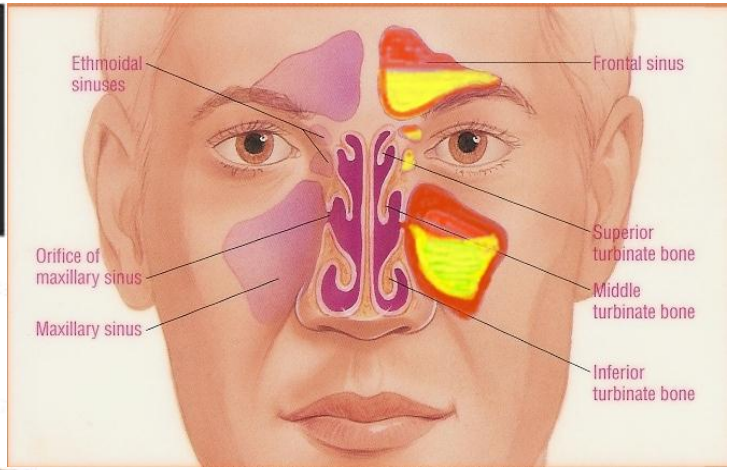
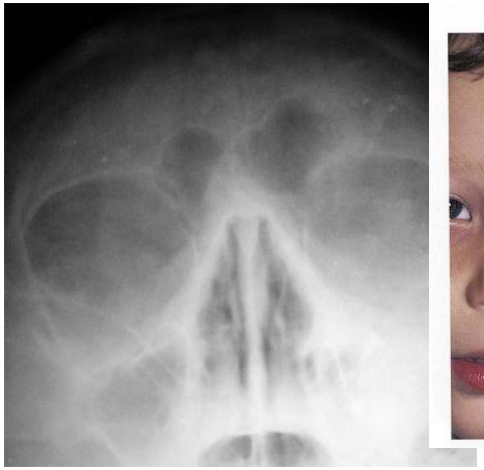
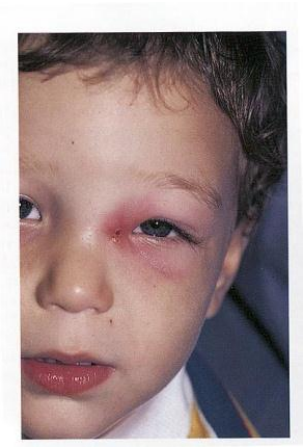


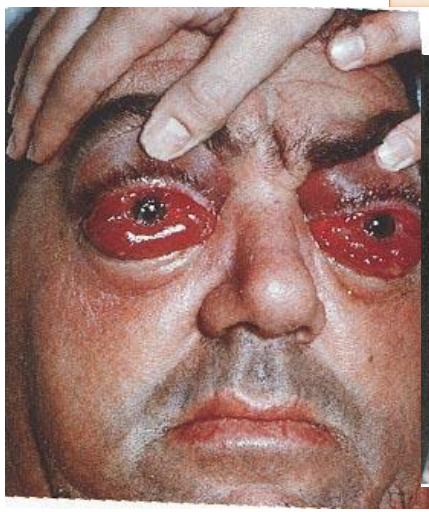
Figure 2. View of right nostril showing pale, boggy nasal mucosa with clear secretions in patient with perennial allergic rhinitis.

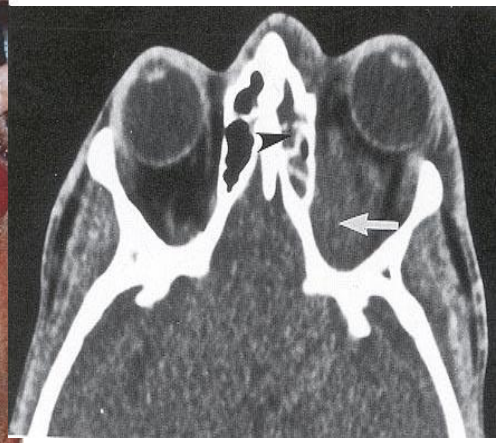
Figure 2 courtesy of Richard Hebert II, MD, and Mark Gerber, MD, department of otolaryngology, Children's Memorial Hospital, Chicago.

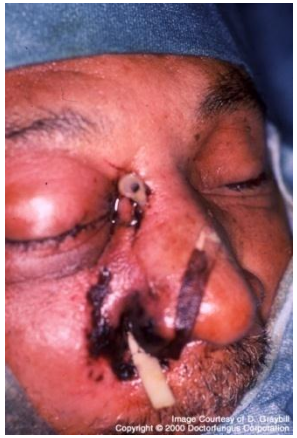


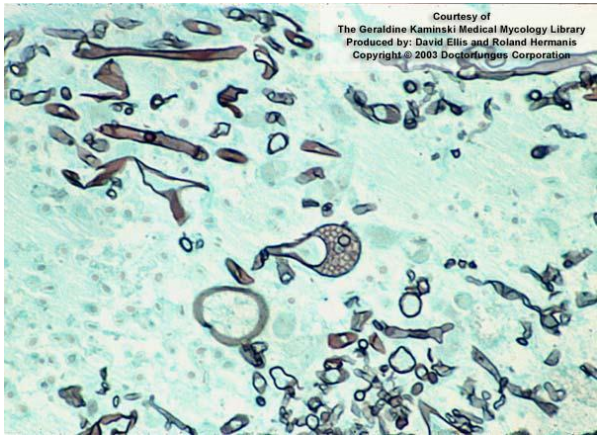






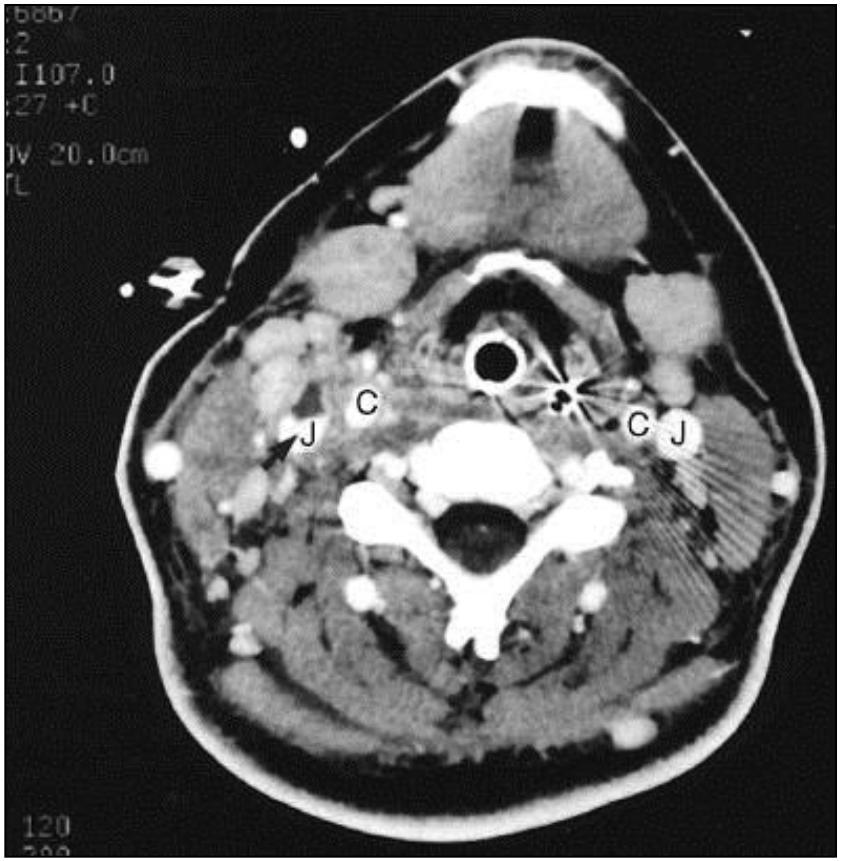






Other Infections

- Lemierre's syndrome
- As a complication peritonsillar abscess or post-dental infection
- Patient present with sore throat, fever and shock due IJV thrombophlebitis which leads to multiple septic emboli in the lung
- Fusobacterium necrophorum
- Medical T same as deep neck space infection
- Venotomy if not respond to medical treatment



Laryngeal disorders

Chronic laryngitis

- Causes of chronic laryngitis

✓ Repeated attacks of acute laryngitis

✓ Excessive use of the voice, especially in dusty atmospheres

✓ Heavy tobacco smoking

✓ Mouth-breathing from nasal obstruction

✓ Chronic infection of nasal sinuses

Chronic laryngitis

❑ Clinical presentation

- The chief symptoms are hoarseness or loss of voice (aphonia). There is irritation of the throat and a spasmodic cough. The disease pursues a chronic course, frequently uninfluenced by treatment, and the voice may become permanently impaired

❑ Investigation

- Laryngoscopy,chest x ray (may reveal lung ca or TB)

❑ Treatment

- Voice rest
- Avoid smoking
- Steam inhalation

Laryngeal paralysis

- Causes
- thyroidectomy, carcinoma of the thyroid or anterior neck injury. Rarely, the vagal trunk itself is involved by tumour, aneurysm or trauma.
- Clinical features and diagnosis
- Hoarseness always accompanies laryngeal paralysis
- Bovine cough’ is a characteristic feature of organic laryngeal paralysis, Sputum clearance may also be impaired,seldom stridor .
- Dx :Laryngoscopy(The paralysed cord in cadaveric position

Laryngeal obstruction

- Laryngeal obstruction is more liable to occur in children than in adults because of the smaller size of the glottis. Important causes.
- Sudden complete laryngeal obstruction by a foreign body produces the clinical picture of acute asphyxia
- violent but ineffective inspiratory efforts with indrawing of the intercostal spaces and the unsupported lower ribs, accompanied by cyanosis. Unrelieved, the condition progresses to coma and death within a few minutes. When, as in most cases, the obstruction is incomplete at first, the main clinical features are progressive breathlessness accompanied by stridor and cyanosis.

Causes of laryngeal obstruction

- ✓ Inflammatory or allergic oedema, or exudate
- ✓ Spasm of laryngeal muscles
- ✓ Inhaled foreign body
- ✓ Inhaled blood clot or vomitus in an unconscious patient
- ✓ Tumours of the larynx
- ✓ Bilateral vocal cord paralysis
- ✓ Fixation of both cords in rheumatoid disease

Treatment

- According to cause
- foreign body :disloge
- Direct laryngoscopy
- Trachestomy in emergeny cases
- Diphtheria :antitoxin ,antibiotics
- Angioedema (adrenaline IM,steriods ,antihistamine)